

Information Technology Innovations to Overcome Health Disparities

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Abstract

The equitable provision of healthcare is central to achieving economic, social and human development in any society. It is important that as innovations, especially technological innovations in care delivery develop that we do not create unintended consequences that restrict access to care because of a digital divide. The concept of health equity arises from the belief that differences in social and economic backgrounds of people lead to differences in their ability to access health care. This mini-track offers submissions that are theoretically and empirically sound while offering implications for practice.

1. Introduction

The use of multiple types of data and technologies to support the process of healthcare delivery has brought about opportunities for innovation. Improvements in people's healthcare has to be seen in the context of the individual, community and nation, where the government takes responsibility for ensuring the wellbeing of the individual not just for the sake of that individual but also for the benefit of the community and society. In response to numerous calls for creating a better world with Information and Communication Technology (ICT) and the challenges of doing so, this mini-track offers a specific view into a well-known but often misunderstood topic, the effects of ICTs in the provision of healthcare [2,4]. With the ethical dimension, equitable healthcare provision does not necessarily mean that everyone should have the same access to healthcare, but that people should be able to live the lives that they value [3].

The concept of health equity suggests that groups of people who are already socially disadvantaged due to their poverty, gender, racial, ethnic or religious backgrounds are further disadvantaged with respect to their health. In understanding the concept of health

equity it is important to note that *health* represents both physical and mental wellbeing in which key social determinants include household living conditions, conditions in communities and workplaces and access to healthcare according to Braveman and Gruskin [3].

2. Innovations to overcome Health Disparities

The first paper in this mini-track is entitled "A tablet-based memory enhancement application for older users: design approach" co-authored by Lua Perimal-Lewis, Anthony Maeder, Susan Gordon and Jennifer Tieman. The authors offer a case study of the design process undertaken in producing a mobile tablet memory assistant solution which was intended for older adults (>65yo) living with early stage memory loss. They adopted an overall design framework consistent with "living laboratory" methodology, for which the associated design principles are: co-creation, multi-stakeholder participation, active user involvement, real-life setting, and multi-method approach. Results of the various user engagements which informed our design choices and for validation of the artefact are presented.

The second paper in this mini-track is entitled "A Pilot Study of a Telemedicine-based Substance Use Disorder Evaluation to Enhance Access to Treatment Following Near-Fatal Opioid Overdose" It is co-authored by Jeffrey Lai, Amy Costigan, Brittany Chapman, Karla Rodriguez-Perez, Kavita Babu,, Stephanie Carreiro and Gerardo Gonzalez. They state that emergency departments (EDs) are the primary sites of medical care after near-fatal opioid overdose but are poorly equipped to provide adequate substance use treatment planning prior to discharge. In many underserved locales, limited access to clinicians trained in addiction medicine and behavioral health exacerbates this disparity. In an effort to improve postoverdose care in the ED, the authors describe the

conception and refinement of the telemedicine program.

2. References

- [1] Braveman, P., & Gruskin, S. (2003). Defining equity in health. *Journal of epidemiology and community health*, 57(4), 254-258.
- [2] Qureshi, S. (2016) Creating a Better World with Information and Communication Technologies: Health Equity, *Information Technology for Development*, 22:1, 1-14, DOI: 10.1080/02681102.2015.1121585
- [3] Sen, A. (2002), "Why health equity?." *Health Economics*, 11: 659–666. doi: 10.1002/hec.762
- [4] Walsham, G. (2012). Are we making a better world with ICTs? Reflections on a future agenda for the IS field. *Journal of Information Technology*, 27(2), 87-93.